31

- 7. The method of claim 1, wherein the protein free medium is RPMI Medium 1640 comprising D-xylose at 0.076 mM, Hepes buffer at 25 mM, L-glutamine, sodium bicarbonate at 30 mM without phenol red, and 300 mg/dl D-glucose.
- 8. The method of claim 1, wherein the protein free medium is RPMI Medium 1640 comprising D-sucrose at 0.076 mM, Hepes buffer at 25 mM, L-glutamine, sodium bicarbonate at 30 mM without phenol red, and 300 mg/dl D-glucose.
- 9. The method of claim 1, wherein the protein free medium is RPMI Medium 1640 comprising polysucrose at 0.076 mM, Hepes buffer at 25 mM, L-glutamine, sodium bicarbonate at 30 mM without phenol red, and 300 mg/dl D-glucose.
- 10. The method of claim 1, wherein the protein free medium is RPMI Medium 1640 comprising D-sorbitol at 0.076 mM, Hepes buffer at 25 mM, L-glutamine, sodium bicarbonate at 30 mM without phenol red, and 300 mg/dl D-glucose.
- 11. The method of claim 1, wherein the tissue is pancreatic, liver, heart, brain, or kidney tissue.
- 12. A method of cultivating, preserving or storing an organism, a cell, a tissue or organ comprising placing the organism, the cell, the tissue or organ in a protein free medium containing (a) an oncotic agent that balances the oncotic pressure across a semi-permeable cell membrane, and (b) at least one of the following ingredients: Hepes buffer, L-glutamine and sodium bicarbonate without phenol red.

32

- 13. The method of claim 12, wherein the organism is a barophylic cell or organism.
- 14. A method of obtaining a cellular product from a cell or a tissue comprising cultivating the cell or the tissue in a protein free medium containing an oncotic agent that balances the oncotic pressure across a semi-permeable cell membrane, RPMI Medium 1640, Hepes buffer, L-glutamine, and sodium bicarbonate without phenol red.
- **15**. The method of claim **14**, wherein the oncotic agent is sucrose, polysucrose, sorbitol or D-xylose.
- 16. The method of claim 15, wherein the oncotic agent is at  $0.076 \ \mathrm{mM}$ .
- 17. The method of claim 14, wherein the Hepes buffer is at 25 mM.
- 18. The method of claim 11, wherein the sodium bicarbonate is at 30 mM without phenol red.
- 19. The method of claim 14, wherein the protein free medium further comprises D-glucose.
- 20. The method of claim 12, wherein the protein free medium comprises D-xylose, RPMI Medium 1640, Hepes buffer, L-glutamine, and sodium bicarbonate without phenol red

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